

**Swedesboro-Woolwich School District's STEAM Curriculum Guidance Document**

**GRADE 3 – Introduction to STEM and the Design Process**

**Mission Statement**

The primary goal of the Swedesboro-Woolwich School District is to prepare each student with the real life skills needed to compete in a highly competitive global economy. This will be achieved by providing a comprehensive curriculum, the integration of technology, and the professional services of a competent and dedicated faculty, administration, and support staff.

Guiding this mission will be Federal mandates, including No Child Left Behind, the New Jersey Core Curriculum Content Standards, and local initiatives addressing the individual needs of our students as determined by the Board of Education. The diverse resources of the school district, which includes a caring PTO and active adult community, contribute to a quality school system. They serve an integral role in supporting positive learning experiences that motivate, challenge and inspire children to learn.

**Unit/Module Overview**

In unit 1, students will learn to:

- While practicing a growth mindset, the student will utilize the design process to create a working pop up card.

**Standards Covered in Current Unit/Module**

**Related Standards and Learning Goals**



CS.3-5.8.2.5.ED.3 - Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.

CS.3-5.8.2.5.ED.2 - Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

GRADE 3 – Introduction to STEM and the Design Process

Unit/Module Weekly Learning Activities and Pacing Guide			
Topic & # Days	NJ Standards	Critical Knowledge & Skills	Possible Resources & Activities
Introduction to STEM and Fixed/Growth Mindset (1 or 2)	<ul style="list-style-type: none"> <li>CS.3-5.8.2.5.ED.2</li> </ul>	<p><b>Obj. We are learning to:</b> sort and defend examples of whether a mindset is classified as growth or fixed.</p> <p><b>Suggested Formative Assessment(s):</b></p> <ul style="list-style-type: none"> <li><a href="#">Growth and Fixed Mindset quiz</a></li> </ul>	<ul style="list-style-type: none"> <li>Activity <ul style="list-style-type: none"> <li>Class Into / Growth and Fixed Mindset Activity</li> </ul> </li> <li>Video <ul style="list-style-type: none"> <li> Famous Failures - Never Give Up</li> </ul> </li> <li>Materials <ul style="list-style-type: none"> <li> Growth or Fixed Activity 1</li> <li><a href="#">Kahoot!</a></li> </ul> </li> </ul>
Cooperative cup lifting activity (1)	<ul style="list-style-type: none"> <li>CS.3-5.8.2.5.ED.2</li> </ul>	<p><b>Obj. We are learning to:</b> work with a peer(s) to cooperatively solve a problem</p> <p><b>Suggested Formative Assessment(s):</b></p> <ul style="list-style-type: none"> <li> Teamwork Reflection</li> </ul>	<ul style="list-style-type: none"> <li>Activity <ul style="list-style-type: none"> <li>Cup Stacking Teamwork Activity</li> </ul> </li> <li>Video <ul style="list-style-type: none"> <li> Cup Stacking Team Building Activity</li> </ul> </li> <li>Materials <ul style="list-style-type: none"> <li>Red Cups</li> <li>Rubber Bands with strings attached</li> </ul> </li> </ul>
The Design Process (1 or 2)	<ul style="list-style-type: none"> <li>CS.3-5.8.2.5.ED.2</li> </ul>	<p><b>Obj. We are learning to:</b> design and create a prototype.</p> <p><b>Suggested Formative Assessment(s):</b></p> <ul style="list-style-type: none"> <li> The Design Process Quiz1</li> </ul>	<ul style="list-style-type: none"> <li>Activity <ul style="list-style-type: none"> <li>Introduction to the Design Process</li> </ul> </li> <li>Video <ul style="list-style-type: none"> <li> Kid Engineer: Bike Trailer   Design Squa...</li> <li> The Design Process</li> </ul> </li> </ul>
Introduction pop-up card project; creation of a prototype (1)	<ul style="list-style-type: none"> <li>CS.3-5.8.2.5.ED.2</li> </ul>	<p><b>Obj. We are learning to:</b> sort and defend examples of whether a mindset is classified as growth or fixed.</p> <p><b>Suggested Formative Assessment(s):</b></p> <ul style="list-style-type: none"> <li> My Prototype</li> </ul>	<ul style="list-style-type: none"> <li>Activity <ul style="list-style-type: none"> <li>Introduction to Design Process Project</li> </ul> </li> <li>Video <ul style="list-style-type: none"> <li> Pop-Up Cards   Design Squad</li> </ul> </li> <li>Materials <ul style="list-style-type: none"> <li>Pop up card examples</li> </ul> </li> </ul>

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Utilize a prototype to create a final copy of a pop=up card (4)	<ul style="list-style-type: none"> <li>● <b>CS.3-5.8.2.5.ED.3</b></li> </ul>	<p><b>Obj. We are learning to:</b> utilize a prototype to create a final copy of their project.</p> <p><b>Suggested Summative Assessment(s):</b></p> <ul style="list-style-type: none"> <li>●  Copy of Scale Tracking Sheet Gr 3 Unit 1</li> <li>●  Pop Up Card Rubric</li> </ul>	<ul style="list-style-type: none"> <li>● Activity <ul style="list-style-type: none"> <li>○ Design Process Project (Pop Up Cards)</li> </ul> </li> <li>● Materials <ul style="list-style-type: none"> <li>○ Paper</li> <li>○ Cardstock</li> <li>○ Scissors</li> <li>○ Gluesticks</li> <li>○ Crayons</li> </ul> </li> </ul>
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[Link to Additional Components including Cross Curricular Connections, Accommodations, Assessments, Etc](#)

[ELA Enduring Understanding Statements](#)